Amendments to the Claims

Kindly amend claims 1, 3, 6, 7, 17 & 19 as set forth below. All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/double brackets (for deleted matter).

1. (Currently Amended) A method of facilitating operation of a cooling system for a computing environment, the method comprising:

automatically checking at least one coolant loop of the cooling system for a leak, the ~~automatically~~ automatic checking including isolating the at least one coolant loop from coolant flow through the cooling system and checking for drop in coolant pressure within the at least one coolant loop; and

upon detection of a drop in coolant pressure in the at least one coolant loop, retaining isolation of the at least one coolant loop from coolant flow through the cooling system.

2. (Original) The method of claim 1, wherein the at least one coolant loop comprises multiple coolant loops, and wherein the isolating comprises successively isolating coolant loops of the multiple coolant loops to automatically check for a leak, and isolating each coolant loop of the multiple coolant loops having a leak detected therein.

3. (Currently Amended) The method of claim 2, wherein the ~~automatically~~ automatic checking comprises for each coolant loop of the multiple coolant loops:

closing a first valve of the coolant loop;

reading a first pressure value of coolant to the coolant loop;

closing a second valve of the coolant loop;

waiting a defined interval;

reading a second pressure value of coolant in the coolant loop; and

determining whether the difference in the first pressure value less the second pressure value is greater than a defined decay value, and if so, retaining isolation of the coolant loop from coolant flow through the cooling system.

4. (Original) The method of claim 3, wherein the first valve comprises a return side valve, the first pressure value comprises a supply pressure of coolant into the cooling loop, the second valve comprises a supply side valve, and the second pressure value comprises coolant pressure at the return side of the coolant loop.

5. (Original) The method of claim 3, wherein each coolant loop of the multiple coolant loops cools a different associated electronics subsystem of the computing environment, and wherein the method further comprises sending a signal to shutoff power to the associated electronics subsystem when a leaking coolant loop is detected.

6. (Currently Amended) The method of claim 1, wherein the ~~automatically~~ automatic checking is responsive to an indication of a coolant leak, and wherein the checking comprises comparing a change in pressure within the coolant loop over an interval of time with a defined decay value, and if greater than the defined decay value, then recording presence of a leak in the at least one coolant loop and retaining isolation of the at least one coolant loop from coolant flow through the cooling system.

7. (Currently Amended) The method of claim 1, wherein the at least one coolant loop comprises multiple coolant loops, and wherein the ~~automatically~~ automatic checking comprises automatically checking for a leak in each coolant loop of the multiple coolant loops and logging, for each coolant loop, a result of the ~~automatically~~ automatic checking.

8. (Original) The method of claim 1, further comprising initiating the automatically checking responsive to an indication of a coolant leak, the indication of a coolant leak resulting from employing at least one pressure transducer to obtain multiple pressure measurements related to an amount of coolant within an expansion tank of the cooling system, wherein the indication of a leak is signaled when a rate of volume change of coolant within the expansion tank is above a leak rate set point.

9. (Original) A system for facilitating operation of a cooling system for a computing environment, the system comprising:

means for automatically checking at least one coolant loop of the cooling system for a leak, the means for automatically checking including means for isolating the at least one coolant loop from coolant flow through the cooling system, and for checking for drop in coolant pressure within the at least one coolant loop; and

means for retaining isolation of the at least one coolant loop from coolant flow through the cooling system upon detection of a drop in coolant pressure in the at least one coolant loop.

10. (Original) The system of claim 9, wherein the at least one coolant loop comprises multiple coolant loops, and wherein the means for isolating comprises means for successively isolating coolant loops of the multiple coolant loops to automatically check for a leak, and the means for retaining isolation comprises means for retaining isolation of each coolant loop of the multiple coolant loops having a leak detected therein.

11. (Original) The system of claim 10, wherein the means for automatically checking comprises for each coolant loop of the multiple coolant loops:

means for closing a first valve of the coolant loop;

means for reading a first pressure value of coolant to the coolant loop;

means for closing a second valve of the coolant loop;

means for waiting a defined interval;

means for reading a second pressure value of coolant in the coolant loop; and

means for determining whether the difference in the first pressure value less the second pressure value is greater than a defined decay value, and if so, for retaining isolation of the coolant loop from coolant flow through the cooling system.

12. (Original) The system of claim 11, wherein the first valve comprises a return side valve, the first pressure value comprises a supply pressure of coolant into the cooling loop, the second valve comprises a supply side valve, and the second pressure value comprises coolant pressure at the return side of the coolant loop.

13. (Original) The system of claim 11, wherein each coolant loop of the multiple coolant loops cools a different associated electronics subsystem of the computing environment, and wherein the system further comprises means for sending a signal to shutoff power to the associated electronics subsystem when a leaking coolant loop is detected.

14. (Original) The system of claim 9, wherein the means for automatically checking is responsive to an indication of a coolant leak, and wherein the means for checking comprises means for comparing a change in pressure within the coolant loop over an interval of time with a defined decay value, and if greater than the defined decay value, then recording presence of a leak in the at least one coolant loop.

15. (Original) The system of claim 9, wherein the at least one coolant loop comprises multiple coolant loops, and wherein the means for automatically checking comprises means for automatically checking for a leak in each coolant loop of the multiple coolant loops and means for logging, for each coolant loop, a result of the automatically checking.

16. (Original) The system of claim 9, further comprising means for initiating the automatically checking responsive to an indication of a coolant leak, the indication of a coolant leak resulting from employing at least one pressure transducer to obtain multiple pressure measurements related to an amount of coolant within an expansion tank of the cooling system, wherein the indication of a leak is signaled when a rate of volume change of coolant within the expansion tank is above a leak rate set point.

17. (Currently) At least one program storage device readable by a machine, tangibly embodying at least one program of instructions executable by the machine for implementing a method of facilitating operation of a cooling system for a computing environment, the method comprising:

automatically checking at least one coolant loop of the cooling system for a leak, the ~~automatically~~ automatic checking including isolating the at least one coolant loop from coolant flow through the cooling system and checking for drop in coolant pressure within the at least one coolant loop; and

upon detection of a drop in coolant pressure in the at least one coolant loop, retaining isolation of the at least one coolant loop from coolant flow through the cooling system.

18. (Original) The at least one program storage device of claim 17, wherein the at least one coolant loop comprises multiple coolant loops, and wherein the isolating comprises successively isolating coolant loops of the multiple coolant loops to automatically check for a leak, and isolating each coolant loop of the multiple coolant loops having a leak detected therein.

19. (Currently Amended) The at least one program storage device of claim 18, wherein the automatically checking comprises for each coolant loop of the multiple coolant loops:

closing a first valve of the coolant loop;

reading a first pressure value of coolant to the coolant loop;

closing a second valve of the coolant loop;

waiting a defined interval;

reading a second pressure value of coolant in the coolant loop; and

determining whether the difference in the first pressure value less the second pressure value is greater than a defined decay value, and if so, retaining isolation of the coolant loop from coolant flow through the cooling system.

20. (Original) The at least one program storage device of claim 19, wherein the first valve comprises a return side valve, the first pressure value comprises a supply pressure of coolant into the cooling loop, the second valve comprises a supply side valve, and the second pressure value comprises coolant pressure at the return side of the coolant loop.

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